

## 35 Planning and land use

### 35.1 Introduction

The long term development of the proposed airport would affect existing and future land use of surrounding land. The proposed airport would operate in the context of the broader urbanisation of Western Sydney, which is likely to be well advanced by the time of the long term development.

The need for a second Sydney airport, and its potential location at Badgerys Creek, has already been subject to consideration over a number of decades by successive Australian, State and local governments. As such, numerous planning instruments are already in place or would be in place by the time of operation of the long term development. Most recently, the proposed airport is anticipated by the establishment of the Western Sydney Priority Growth Area and others.

This assessment builds on previous studies and considers how the proposed airport would affect rural-residential, agricultural, employment and recreational lands. Development controls have been considered for the management of aircraft safety, noise, lighting and air quality impacts from airport operations. The need for local traffic and transport improvements has been identified, and considerations for future land acquisition have been recommended.

For this chapter, the long term development of the proposed airport is understood to occur progressively in stages that expand on the size of the Stage 1 development.

### 35.2 Methodology

A specialist report on planning and land use impacts of the proposed airport was prepared for this EIS (see Appendix N (Volume 4)) The methodology adopted for the preparation of the assessment included:

- inspection and analysis of the key characteristics of the airport site and surrounding land;
- review of existing Commonwealth and NSW legislation applying to the airport site and surrounding land;
- review of strategic land use plans relevant to the airport site and surrounding land to identify NSW Government objectives for development of the area;
- consultation with planning staff in local councils in the vicinity of the airport site to confirm applicable land use plans, policies and assessment considerations;
- review of relevant sections of other technical reports prepared for this EIS;
- assessment of the likely impacts of the airport proposal on surrounding land uses; and
- recommendations for mitigation measures to reduce the impacts of the proposed development.

## 35.3 Existing environment

### 35.3.1 Airport site

Existing rural-residential and agricultural land uses on the airport site would be discontinued and replaced by the Stage 1 development.

Badgerys Creek flows along the southern and eastern boundary of the airport site, and Oaky Creek originates in the centre of the site and flows northwards. Both creeks drain to South Creek and the Hawkesbury River.

The airport site supports a variety of vegetation types and is contained within the Cumberland Plain Mitchell Landscape. This landscape comprises low rolling hills and valleys in a rain shadow area between the Blue Mountains and the coast. Vegetation is characterised by grassy woodlands and open forest dominated by Grey Box (*Eucalyptus moluccana*) and Forest Red Gum (*Eucalyptus tereticornis*) and poorly drained valley floors with forests of Cabbage Gum (*Eucalyptus amplifolia*) and Swamp Oak (*Casuarina glauca*).

Vegetation within the construction impact zone for the Stage 1 development would need to be removed, although vegetation in the remainder of the airport site would be retained until the area is required for future use. Local roads within the airport site would be decommissioned following the Stage 1 development in preparation for the long term development. Following the Stage 1 development, the major roads in the vicinity of the site would be:

- the M12 Motorway, which would be the main access road to the airport site and link the M7 Motorway and The Northern Road;
- The Northern Road, which would be realigned to the west of the airport site; and
- the Outer Sydney Orbital, to the west of the airport site.

### 35.3.2 Surrounding land

The proposed airport and associated operations would occur across a number of local government areas (LGAs). The airport site itself is located within Liverpool LGA, bordering the Penrith LGA to the north. To the west of the airport site is the Blue Mountains LGA while the Wollondilly, Camden and Campbelltown LGAs lie generally toward the south. To the east of the airport site are the Bankstown, Fairfield and Blacktown LGAs.

## 35.4 Land use planning and regulation

### 35.4.1 Australian Government

#### 35.4.1.1 *Legislation and regulation*

Under current law, the long term development stages of the proposed airport would continue to require approval under the *Airports Act 1996*. The application of Commonwealth legislation to the proposed airport is discussed further in Chapter 3 (Volume 1).

The airport master plan would also be revised every five years. The specific regime which applies to the long term development would depend on the nature of that development, and the long term planning would need to have regard to the *Airports Act* and any master plan.

Australian Standard 2021:2015 – *Acoustics – Aircraft noise intrusion – Building siting and construction* (AS 2021) would continue to provide guidance on the siting and construction of buildings in the vicinity of airport to minimise aircraft noise intrusion. The guidance provided by AS 2021 is based on the level of potential aircraft noise exposure at a given site using the Australian Noise Exposure Forecast (ANEF) system.

#### 35.4.1.2 *National Airport Safeguarding Framework*

The National Airports Safeguarding Framework (NASF) is a national land use planning framework agreed to by Commonwealth, State and Territory Transport and Infrastructure Ministers in 2012. The NASF recognises that responsibility for land use planning rests with State, Territory and local governments, but that a national approach can assist in improving planning outcomes on and near airports and flight paths.

The framework aims to:

- improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions;
- improve community amenity by minimising noise sensitive developments near airports including through the use of additional noise metrics; and
- improve aircraft noise disclosure (public notification) mechanisms.

The NASF would be integral to safeguarding operations at the proposed airport into the future, as it expands in stages over the long term.

## 35.4.2 NSW Government

### 35.4.2.1 Legislation

The NSW planning legislative framework consists primarily of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) and the Environmental Planning and Assessment Regulation 2000. Within this structure are the following three key instruments:

- State environmental planning policies (SEPPs) – these policies outline the NSW Government’s approach to dealing with more specific planning issues. They can be either site or issue specific, and may control land zoning and development controls, or ensure the establishment of a development process;
- local environmental plans (LEPs) – each LGA has a LEP to guide development and protect natural resources within LGAs. LEPs are prepared by local councils; and
- local planning directions – issued by the Minister for Planning under section 117 of the EP&A Act, these provide direction on matters which planning proposals need to address.

Relevant provisions would need to be maintained and revised in applicable NSW environmental planning instruments for development surrounding the proposed airport, to continue to safeguard airport operations, and protect the safety and amenity of surrounding residents and employees.

### 35.4.2.2 Strategic planning initiatives

A number of strategic planning initiatives and associated land release areas are planned for Western Sydney that would facilitate urban growth. These include:

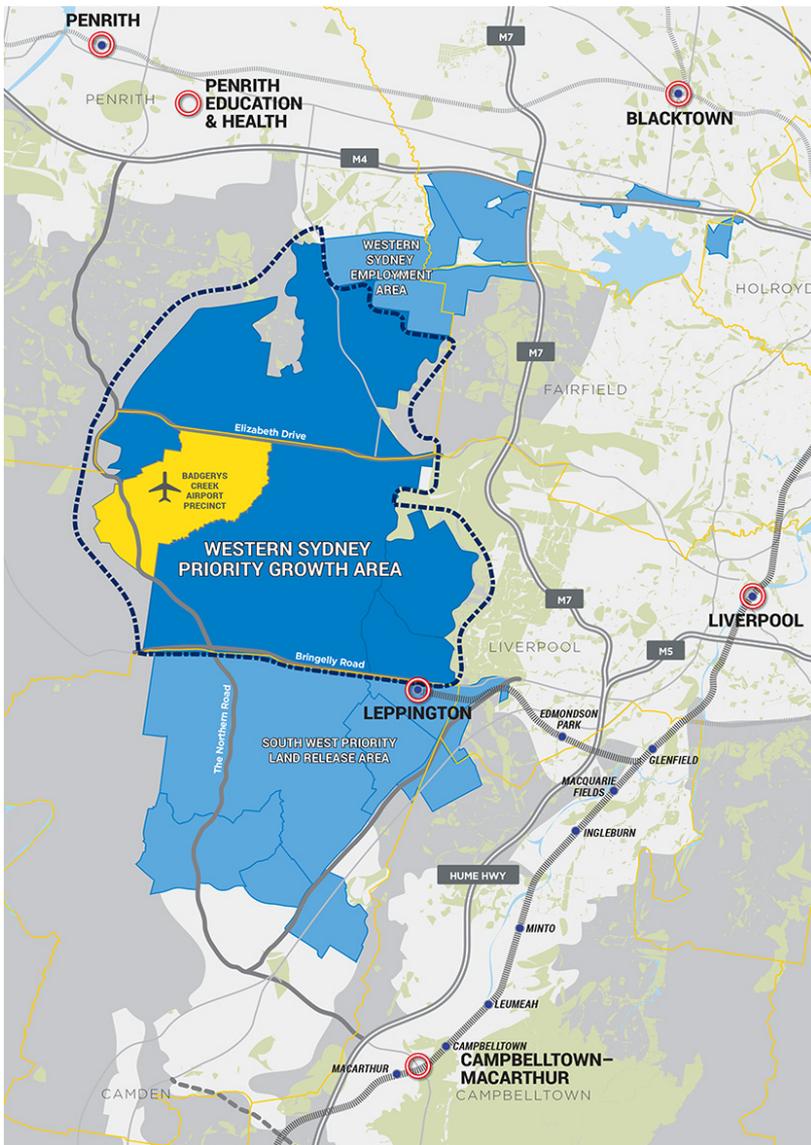
- Western Sydney Priority Growth Area;
- Western Sydney Employment Area;
- South West Priority Growth Area;
- North West Priority Growth Area; and
- Greater Macarthur Priority Growth Area.

#### *Western Sydney Priority Growth Area*

The Western Sydney Priority Growth Area is a strategic planning initiative that aims to provide jobs, homes and services in the land around the proposed airport. The extent of the Western Sydney Priority Growth Area is shown in Figure 35–1.

The Western Sydney Priority Growth Area is expected to be the primary planning initiative to coordinate housing and employment growth in the area and promote compatible developments around the airport site. This will help to maximise the benefits and minimise the impacts of the proposed airport.

An accompanying Land Use and Infrastructure Strategy is under development to guide new infrastructure investment, identify new homes and jobs close to transport, and coordinate services in the Western Sydney Priority Growth Area. A new special infrastructure contribution levy will be established to cover the cost of regional road infrastructure, strategic land use planning costs and environmental protection measures.



**Figure 35–1** Western Sydney Priority Growth Area

*Western Sydney Employment Area*

The Western Sydney Employment Area is a strategic planning initiative that aims to provide businesses in Western Sydney with land for industry and employment including transport, logistics, warehousing and office space. The Western Sydney Employment Area is adjacent to the Western Sydney Priority Growth Area and is shown in Figure 35–1. The Western Sydney Employment Area would provide opportunities for residents of Western Sydney to work locally.

Previously the NSW Government had intended to extend the Western Sydney Employment Area to the south, including the area which is now the airport site. Following the Australian Government announcement in April 2014 to locate an airport at Badgerys Creek, the plans for the extension of the Western Sydney Employment Area were replaced with the introduction of the Western Sydney Priority Growth Area which will be focussed on ensuring compatible employment and housing development around the airport site.



### *South West Priority Growth Area*

The South West Priority Growth Area is a strategic planning initiative dedicated to providing housing in Western Sydney. The associated land release area is adjacent to the Western Sydney Priority Growth Area and is shown in Figure 35–1.

The South West Priority Growth Area involves development of communities in precincts including Oran Park, Turner Road, East Leppington, Austral and Leppington North, Edmondson Park and Catherine Fields. Collectively the developments would create around 40,000 residences along with local amenities such as schools, public parks, employment areas and town centres. Planning is ongoing for other precincts such as Lowes Creek and Marylands.

### *North West Priority Growth Area*

The NSW Government established the North West Priority Growth Area in 2005 to encourage sustainable planning on Sydney's urban edge and provide housing in the north west of Sydney that is close to employment, schools and other services.

The North West Priority Growth Area is approximately 10,000 hectares in size and over time, approximately 70,000 new dwellings will be built. The NSW Government has also planned upgrades to transport infrastructure to support new housing.

### *Greater Macarthur Priority Growth Area*

The NSW Government released a preliminary strategy and proposed amendments to *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* in late 2015 to incorporate land in Menangle Park, Mount Gilead and Wilton as future residential and employment areas in Sydney's far south. The preliminary strategy identifies opportunities to deliver up to 35,000 homes in Menangle Park and Mount Gilead and in a new town at Wilton.

## 35.5 Assessment of impacts during operation

Having regard to the existing environment, strategic planning at the local and regional scale, and the scope of the proposal, the following likely impacts on land use and planning from the proposed airport have been identified.

### 35.5.1 Land use impacts

#### 35.5.1.1 *Rural residential and agricultural lands*

As the proposed airport continues to develop in incremental stages beyond the Stage 1 development, along with the implementation of the strategic planning initiatives described in Section 35.4.2.2, much of the existing rural residential and agricultural lands that surround the airport site are likely to have transitioned to alternative land uses. Given the likely absence of rural residential land use by the time the long term airport would be in operation, impacts on rural residential land from the operation of the long term development would likely be minimal.

#### 35.5.1.2 *Employment lands*

The expansion of the proposed airport following the Stage 1 development would continue to support the development of the adjacent Western Sydney Priority Growth Area. The proposed airport would be a mutually beneficial land use, creating demand for employment generating activities and providing transport infrastructure required for freight and logistics.

The Land Use Plan (part of the revised draft Airport Plan) identifies land use zones for retail and commercial development within the airport site. While specific business activities are yet to be confirmed, the impacts of these proposals on the proposed airport and surrounding lands would be considered in accordance with the provisions of the Airports Act.

#### 35.5.1.3 *Recreational lands*

On the basis of the indicative aircraft flight paths outlined in this report, visual and noise impacts would result at the following recreational reserves:

- Twin Creeks Country Club;
- Ropes Creek Reserve (Erskine Park);
- Eastern Creek Raceway, Sydney International Equestrian Centre (Horsley Park);
- Western Sydney Parklands (Horsley Park);
- Calmsley Hill City Farm (Abbotsbury);
- Sales Park (Luddenham);
- Bents Basin State Conservation Area (Greendale); and
- Burragarang Recreation Area (Silverdale).

Long term noise modelling discussed in Chapter 31 identifies potential noise impacts on these locations. While operation of the long term development may have impacts on the amenity of these sites, impacts on recreational lands are not currently addressed under *AS 2021*. The specific impacts of operation of the future airport would depend on the final flight paths which will be developed in accordance with the requirements of the Airports Act or the relevant instrument in place at the time of operations. Impacts of the long term development on the Greater Blue Mountains World Heritage Area are assessed in Chapter 40.

## 35.5.2 Airport operations

### 35.5.2.1 Airspace development controls

During the development of Stage 1, Obstacle Limitation Surfaces (OLS) and the Procedures for Air Navigation Systems Operations Surface (PANS-OPS) would be identified and declared for the proposed airport as part of ongoing operations planning.

It is anticipated that the Department of Infrastructure and Regional Development would liaise with the NSW Department of Planning and Environment along with the relevant local councils to adopt the necessary additional OLS and PANS-OPS guidelines in applicable environmental planning instruments. This would ensure the operation of the long term development does not impede safe aircraft operations for the expanded airport operations.

### 35.5.2.2 Public Safety Zones

The Australian Government is working with the states and territories on the development of a national standard for public safety zones (PSZs) to be incorporated into the NASF. PSZs are an area of approximately 1,000 metres x 250 metres at the ends of runways in which development is constrained. They are based on runway use statistics correlated against international crash data. PSZs minimise the risk of damage by aircraft during landing or take off by ensuring any development within the zone does not add unduly to existing levels of risk.

Where a PSZ is identified, additional scrutiny might be considered for new developments that:

- increase residential use and population density in the zone;
- attract large numbers of people, such as retail or entertainment developments;
- involve institutional uses, such as schools and hospitals;
- involve the manufacture or depot storage of noxious and hazardous materials; and
- attract significant static traffic.

### 35.5.2.3 Aircraft noise

By the time of operation of the long term development, land use changes resulting from the Western Sydney and South West Priority Growth Area and Western Sydney Employment Area would be likely to have largely provided a buffer to sensitive land uses.

The planning and land use implications of aircraft noise impacts are determined using the ANEF. Table 35–1 identifies the recommended development types within ANEF zones, as outlined in AS 2021. The aircraft overflight noise technical report prepared for the EIS (see Appendix E1 (Volume 4)) provides Australian Noise Exposure Concept (ANEC) contour maps which use indicative data on aircraft types, aircraft operations and flight paths to forecast the aircraft noise levels that would be expected as a result of the proposed airport operations.

ANEF contour charts, with a 20-year timeframe, are also expected to be produced progressively over the life the airport in accordance with the requirements of the Airports Act. As such, an ANEF contour chart will be produced prior to operation of the long term development.

**Table 35–1** Building site acceptability based on ANEF zone (AS 2021)

Building type	ANEF zone		
	Acceptable	Conditionally acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
School, university	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30 to 40 ANEF	Greater than 40 ANEF
Other industrial	Acceptable in all ANEF		

A number of areas surrounding the airport site are expected to be affected by noise generated by aircraft overflights and operations of the proposed airport, as identified in Chapter 31. The NSW Department of Planning and Environment along with the relevant local councils would be consulted to ensure applicable environmental planning instruments are amended as necessary to include future ANEF forecasts and supporting AS 2021-compliant building siting and development controls as they are completed.

The implementation of *Guideline A: Measures for Managing Impacts of Aircraft Noise* under the NASF would be instrumental in managing potential future operational noise impacts for future land use planning and development around the proposed airport.

#### 35.5.2.4 Lighting

The proposed runway orientation limits the possible areas that would be affected by approach lighting and runway lighting. Lighting intensity restrictions will apply for non-aviation activity, such as road lighting, in the immediate vicinity of the runways. The maximum intensity of light sources where they have the potential to cause confusion or distraction to pilots within a 6 km radius of an airport may be determined under regulation 94 of the *Civil Aviation Regulations 1988*.

The location of buildings between the two runways also provides a buffer for the potential impact of the airport lighting on surrounding sensitive land uses. Light emitting diode (LED) apron lighting and directional external lighting would minimise potential impacts on surrounding land. The proposed airport lighting would likely have minimal impact on the surrounding land uses.

See Chapter 38 for further details relating to the assessment of light spill and sky glow.

#### 35.5.2.5 Other aviation safety considerations

The Department of Infrastructure and Regional Development would liaise with the NSW Department of Planning and Environment and the relevant local councils to seek the adoption of the necessary guidelines in applicable environmental planning instruments. This will ensure future development in the vicinity of the proposed airport does not impede safe aircraft operations in accordance with the NASF and other requirements.

#### 35.5.2.6 Air quality

An air quality assessment was prepared for the EIS to forecast the potential air quality impacts on surrounding areas. Potential impacts from the proposed airport include a slight degradation in local and regional air quality, impacts on human health and impacts on the environment (see Chapters 32 and 39).

Modified land use zoning for employment generation and other less sensitive land uses would reduce the potential for local air quality impacts on future sensitive receivers in the vicinity of the airport site. The regional impacts on air quality from the proposed airport would be a cumulative effect of aircraft operations, road traffic, industrial emissions and other regional sources.

#### 35.5.2.7 Traffic and transport

As outlined in Chapter 33, changes to the road network on, and in the vicinity of the airport site would be required to cater for the continued expansion of operations at the proposed airport beyond Stage 1. This includes closure of the onsite portion of Badgerys Creek Road and all pre-existing onsite roads as required.

The Northern Road would be realigned before the start of Stage 1 operations, along the western boundary of the airport site. The M12 would also be constructed by the commencement of Stage 1 operations to link The Northern Road and the M7 Motorway while providing a direct route and access to the airport. The Outer Sydney Orbital is also likely to be developed in stages with earlier stages related to the employment lands and Western Sydney Airport opening in advance of others.



The Australian and NSW governments are undertaking a Joint Scoping Study on the Rail Needs for Western Sydney, including the proposed airport. The Scoping Study will consider the best options for future rail links, including decisions about timing and rail service options, both directly to the airport site and within the Western Sydney region. The Scoping Study will also address the question of what would it take to have rail on the airport site by the time the airport is operational. Subject to the findings of the Scoping Study, a final rail alignment will be determined in consultation with the NSW Government.

### 35.5.3 Additional land acquisition

Much of the land required for the construction of the long term development has been acquired by the Australian Government.

An easement or other interest will be required to accommodate High Intensity Approach Lighting (HIAL) where it protrudes beyond the site boundary at the south-western end of the second runway. Planning controls restricting development on, and adjacent to, the easement may apply.

The NSW Government is investigating options for identifying and preserving a fuel pipeline corridor to service the proposed airport in the future, however a specific corridor is yet to be identified. Arrangements for access to the fuel pipeline, which may involve an easement, would be required along the pipeline corridor to ensure maintenance access and as a public safety measure. This may include planning controls restricting development on, and adjacent to, the pipeline.

## 35.6 Considerations for future development stages

Having regard to the planning and land use impact assessment, Table 35–2 summarises the considerations identified to address planning and land use issues for the long term development.

**Table 35–2** Considerations for future development stages

Issue	Recommended considerations	Comment
Operational airspace	Liaise with Airservices Australia, the Department of Planning and Environment and relevant local councils to implement appropriate OLS and PANS-OPS requirements in applicable environmental planning instruments to reflect prescribed airspace under the Airports (Protection of Airspace) Regulations 1996.	This would ensure OLS and PANS-OPS requirements are implemented in applicable environmental planning instruments.
Operational aviation safety	Liaise with the NSW Department of Planning and Environment along with relevant local councils to seek the adoption of the necessary guidelines in applicable planning instruments to ensure future development in the vicinity of the proposed airport does not impede safe aircraft operations in accordance with the NASF and other requirements.	This would ensure surrounding land uses and developments would not pose a danger to the safe operations of the proposed airport.
Noise	Liaise with the Department of Planning and Environment and relevant local councils to implement appropriate noise management controls in applicable environmental planning instruments with reference to AS 2021 and <i>Guideline A: Measures for Managing Impacts of Aircraft Noise under the National Airports Safeguarding Framework</i> .	As the airport expands, applicable environmental planning instruments may need to be amended to reflect the revised ANEF.

## 35.7 Summary of findings

Construction and operation of the proposed airport would change the rural-residential character of Badgerys Creek and surrounding land uses. Most of the existing rural-residential and agricultural lands currently surrounding the airport site are likely to have transitioned to alternative land uses by the time of operation of the long term development. This land use outcome has been anticipated in State and local government strategic planning for the area over a number of decades. The long term development would support continued growth of regional centres and priority growth areas.